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**ROTAX**  
**RMC**  
GRAND FINALS

**SARNO,**  
**ITALY**

**circolto**napoli  
internazionale

**OCT 19–26, 2024**

**25 YEARS RMCGF – 25 YEARS RMCGF – 25 YEARS RMCGF – 25 YEARS**

## **TECHNICAL REGULATIONS**

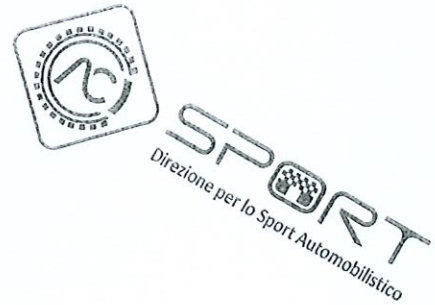
**JUNIOR MAX | SENIOR MAX | DD2 | DD2 MASTERS | E20 SENIOR | E20 MASTERS**



# TECHNICAL REGULATIONS

DD2 MASTER / DD2 / SENIOR MAX / JUNIOR MAX

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# TECHNICAL REGULATIONS

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The Competition shall be run in accordance with the RMCGF 2024 Technical Regulations and official Bulletins and:

- ROTAX MAX CHALLENGE GRAND FINALS 2024 Sporting Regulations and the official Bulletins
- ROTAX MAX CHALLENGE GRAND FINALS 2024 Supplementary Regulations
- CIK/FIA Karting Technical Regulations and official Bulletins

The Organizer of the event reserves the right to issue modifications to the Technical Regulations that will be published as Official Bulletins.

The English language is the official version.

Headings in this document are for ease of reference only and do not form part of these Technical Regulations.

## 1. RMCGF 2024 CATEGORIES

- 125 Junior MAX
- 125 Senior MAX
- 125 MAX DD2
- 125 MAX DD2 Masters
- ROTAX E20 Senior
- ROTAX E20 Masters

## 2. EQUIPMENT

The only equipment – complete kart and tires – allowed during the event will be provided on a loan basis, by the organizer and must be in accordance with these Regulations and its Appendices.

### 2.1. Amount of equipment

2.1.1. One chassis, one engine/powertrain and tires according to article 2.3

2.1.2. Each driver will receive a complete kart drawn by raffle (chassis and engine/powertrain) - on a loan basis for the whole event -, according to the official time schedule.

2.1.3. The driver cannot refuse the vehicle that has been raffled.

2.1.4. No modification is allowed unless specified in the RMCGF Technical Regulations 2024 and its Appendices.

2.1.5. During the event drivers/competitors are not allowed to take the kart, or any part of it (except the battery and battery charger), outside the track facilities.

A Technical Scrutineer may check at any time during the event if the vehicle is complete and all components are present.

If any element of the vehicle is missing, the driver will have the following penalties applied:

- Prior to qualifying, the driver will receive a 10 places penalty on the starting grid for all the qualifying heats.
- Prior to any race, the driver will receive a penalty of 10 seconds for the next race in which he will take part.
- In the event of a repeated infringement, the driver will be disqualified from the event.

2.1.6. Any equipment that was detected as missing must be controlled by the Technical Scrutineer and can also be replaced.

### 2.2. Chassis, brake system, bodywork

2.2.1. Single brand chassis per category, defined by tender. The brand for each category is:

- 125 Junior Max: IPKarting PRAGA
- 125 Senior Max: Sodikart
- 125 Max DD2: BirelART
- 125 Max DD2 Master: Charles Leclerc
- E20 Senior: Sodikart
- E20 Master: Sodikart

2.2.2. Chassis are randomly assigned (on a loan basis for the time of the event) to drivers, registered and routinely checked/scanned by means of the Rotax EMS (Event Management System).

Supported by:



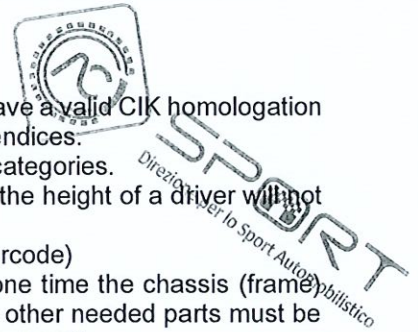
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# TECHNICAL REGULATIONS

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2.2.3. Chassis, brake system, bodywork and Rear Wheel protection system must have a valid CIK homologation and must be in accordance with RMC GF Technical Regulations 2024 and its Appendices.

2.2.4. Front brakes are not allowed in Rotax 125 Junior Max and 125 Senior Max categories.

2.2.5. The Chief Scrutineer may allow some changes on the chassis, e.g. in case the height of a driver will not allow him/her to fit properly in the kart.

2.2.6. Every chassis is marked with a chassis seal with a unique serial number (barcode)

2.2.7. During the event, and in case of an accident, the driver can only change one time the chassis (frame) after the authorization of the Technical Scrutineers. In this case the frame and the other needed parts must be paid for in advance (prices will be defined in the manufacturers price list prior to the event).

2.2.8. Seat

- Original seat as supplied by the respective chassis supplier is legal to be used only.
- It is the Driver / Entrant responsibility to mount the seat in accordance with the regulations.
- All fixation screws and nuts for the seat must be mounted.
- Additional seat stays (supports) must be either fitted and tightened or removed from the chassis.
- Seat supports welded on the frame must not be bent except when authorized by the chassis manufacturer.
- Lead must be fitted to the seat only.

2.2.9. Axles: Only the original rear axle as supplied by the respective chassis supplier is legal to be used.

- Cutting the rear axle is not allowed.
- Fitting anything into the rear axle is not allowed!
- Stub axle adjustment must not be covered.

2.2.10. Stabilizer and sleeves must be either fitted and tightened or removed from the chassis.

2.2.11. Steering wheel can be mounted in any height positions to fit the driver using the standard or optional material as supplied/defined by the manufacturer. Steering shaft cannot be cut.

2.2.12. Floor tray: All screws and nuts must be fitted and tightened at all times.

- A data acquisition sensor must be mounted to one of the fixation screws of the floor tray.
- Drilling a hole/s in the floor tray is not allowed.
- To remove the footrest is an allowed adjustment.

2.2.13. The 2 supports for the rear bumper must be mounted tight to the frame at all times.

2.2.14. Only original brake pads as supplied by the chassis manufacturer for the Grand Final are legal to be used.

2.2.15. It is only allowed to use the parts, including rims, originally supplied by the chassis manufacturer.

2.2.16. Legal optional parts:

- Shorter pedals.
- Shorter brake rod.
- Angled steering wheel boss.
- Adjustable steering wheel boss.

2.2.17. Front fairing

- a) The use of a homologated Front Fairing and of the homologated Front Fairing Mounting Kit of the bodywork homologation is mandatory for all categories, in accordance with CIK Specific Prescriptions, article 31 and CIK Technical Drawing No 2.2. and 2.2.1.
- b) Appropriate fairings and mounting kits will be provided to Entrants/Drivers with each kart and are the only components which may be used.
- c) The provisions of CIK General Prescriptions, article 2.3.3. regarding mounting, installation, checking, reporting of breaches and application of penalties will be applied in full.

## 2.3. Tires

2.3.1. Type:

### 125 Junior MAX

Dry	Mojo D2XX CIK Option	front 4.5 x 10.0 – 5	rear 7.1 x 11.0 – 5
Wet	Mojo W5 CIK	front 4.5 x 10.0 – 5	rear 6.0 x 11.0 – 5

### 125 Senior MAX

Dry	Mojo D5 CIK Prime	front 4.5 x 10.0 – 5	rear 7.1 x 11.0 – 5
Wet	Mojo W5 CIK	front 4.5 x 10.0 – 5	rear 6.0 x 11.0 – 5

Supported by



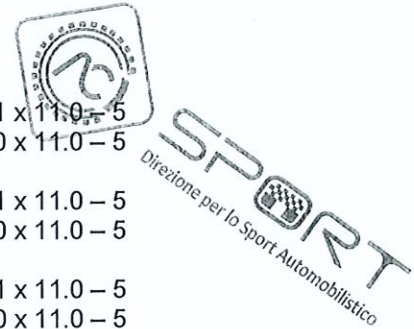
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# TECHNICAL REGULATIONS

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## 125 MAX DD2

Dry Mojo D5 CIK Prime front 4.5 x 10.0 – 5 rear 7.1 x 11.0 – 5  
 Wet Mojo W5 CIK front 4.5 x 10.0 – 5 rear 6.0 x 11.0 – 5

## 125 MAX DD2 Masters

Dry Mojo D5 CIK Prime front 4.5 x 10.0 – 5 rear 7.1 x 11.0 – 5  
 Wet Mojo W5 CIK front 4.5 x 10.0 – 5 rear 6.0 x 11.0 – 5

## ROTAX E20 Senior

Dry Mojo D5 CIK Prime front 4.5 x 10.0 – 5 rear 7.1 x 11.0 – 5  
 Wet Mojo W5 CIK front 4.5 x 10.0 – 5 rear 6.0 x 11.0 – 5

## ROTAX E20 Masters

Dry Mojo D5 CIK Prime front 4.5 x 10.0 – 5 rear 7.1 x 11.0 – 5  
 Wet Mojo W5 CIK front 4.5 x 10.0 – 5 rear 6.0 x 11.0 – 5

### 2.3.2. Quantity for each category

#### 1. Dry tyres:

- 1 set is for non-qualifying practices (non parc fermé status)
- 1 set is for qualifying up to and including finals (non parc fermé status). However, Stewards may decide, at any time, to keep the tyres in Parc Fermé for one or more categories.

#### 2. Wet tyres:

- Maximum one set of MOJO W5 CIK will be handed out for non-qualifying practices (non parc fermé status)
- Organizer keeps the right to decide if a second set of MOJO W5 CIK will be handed out for qualifying practice up to and including final. This set will be mounted and kept in parc fermé.
- Maximum 2 sets are available for the whole event for each category. They will only get handed out in case of rain

#### 3. Distribution and usage of tyres:

- The first set of slick tyres will be handed out after the chassis raffle. This set shall be used during the event for all non-qualifying practices.
- A certain number of used tyres from the first set (depending on the category) will be kept in parc fermé.
- After the last session of the non-qualifying practice each driver will receive a new set of slick tyres, which has to be used for the qualification phase up to and including the final. Each tyre of this set is marked with a barcode and the starting number.
- Each driver is responsible for checking that the marking of the starting number is visible outside, otherwise the tyre has to be presented in parc fermé for remarking.
- If there is a reasonable risk for rain, wet tyres (MOJO W5 CIK) together with rims will be handed out in time. Each tyre of these sets is marked with a barcode and the starting number.
- In case of mechanical failure of a tyre, each driver may exchange maximum 1 front and 1 rear tyre (each wet and dry), except if failure has been caused on purpose/misuse. In case of a mechanical failure of a tyre, the technical scrutineer will determine if the failure was due to material defect or has been caused on purpose/misuse. The technical scrutineer's decision will be final and not subject to protest or appeal.
- If the failure has not been caused on purpose/misuse the following rule will apply:
  - In all categories a new tire will be provided as replacement during Non-Qualifying Practice or before Qualifying. During Qualifying Heats, Pre-finals and Final a used tyre (with similar wear rate) will be provided as replacement.

### 2.3.3. All tyres are marked with barcode and can only be used by the assigned driver.

- Being proven that a tire barcode sticker is not the original or it was manipulated, Driver will be excluded from the event.
- At the entrance to the Start Servicing Parc, a Scrutineer will check the barcode stickers, and if there is any kind of suspicion that the barcode sticker was manipulated or changed, he will report immediately this fact to the Chief Scrutineer. From this moment on, the Driver and his kart are not allowed to access the Start Servicing Parc, until a final decision from the Chief Scrutineer.
- If during the Sporting Checks, after the Qualifying Practice or races, a kart is found that a tire has one non original barcode sticker, he will be disqualified from the event.
- At the entrance of the Start Servicing Parc, a Driver who presents with his/her kart with one or more tyres not corresponding to those assigned to him for the event, will not be allowed to enter until he/she





# TECHNICAL REGULATIONS

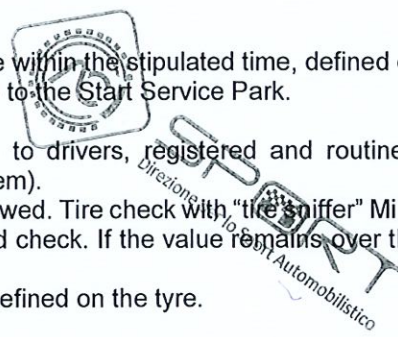
DD2 MASTER / DD2 / SENIOR MAX / JUNIOR MAX

presents his kart with the right tyres, and as long as he/she will be within the stipulated time, defined on the official time schedule of the event, for access of his/her group to the Start Service Park.

2.3.4. Tyres are assigned (on a loan basis for the time of the event) to drivers, registered and routinely checked/scanned by means of the Rotax EMS (Event Management System).

2.3.5. Strictly no modifications or any kind of chemical tire treatment is allowed. Tire check with "tire sniffer" Mini-RAE-Lite: Maximum value = 4ppm. Over this value there will be a second check. If the value remains over the 4ppm, Driver will be disqualified from the event.

2.3.6. Tyres must be mounted in accordance with the rotation markings defined on the tyre.



## 2.4. Engines

- Every engine is sealed with an engine seal with a unique serial number (barcode).
- Engines are randomly assigned (on a loan basis for the time of the event) to drivers, registered and routinely checked/scanned by means of the Rotax EMS (Event Management System).
- The mandatory settings permitted adjustments and optional parts are defined in these RMCGF Technical Regulations 2024 and its Appendices.
- For all components outside the engine seal, the competitor is responsible to assure the conformity with the RMCGF Technical Regulations 2024 and its Appendices.
- At any moment of the event, a Driver / Entrant cutting or manipulating any seal or modifying any of the engine, and/or carburettor will be disqualified from the event.

## 2.5. Return of equipment

- At the end of the event Drivers must return the equipment according to the information's about time, location and procedures of how to return the equipment defined by the organization.
- Equipment must be returned in the same working conditions as delivered. All equipment must be fully cleaned before returned, otherwise a 200€ fee it will be charged.
- Any damaged or missing part of the engine or accessories, toolbox and trolley must be paid for.
- Any damaged part of the chassis must be paid for.
- People appointed by the organizer (Rotax and chassis suppliers) will be responsible for completing an extensive control of the material handed out to the Driver.

## 2.6. Data acquisition

Systems which permit the reading/recording of following data only are allowed:

- Lap time
- Engine rpm (by induction on the high-tension cable)
- Engine coolant (water) temperature (sensor M10x1 mounted in the cylinder head)
- The speed of one wheel
- Acceleration in X/Y direction
- Position (via GPS system)
- Connection of the data acquisition system to the Rotax engine battery is allowed.

## 2.7. Safety equipment

According to Article 7, CIK-FIA technical regulations.

## 2.8. Fuel/Oil

Pre-mixed fuel will be provided via Parc Fermé for the whole event.

## 2.9. Advertising on engines

No sponsor stickers except ROTAX, BRP, MOJO, XPS are allowed on the engine and engine accessories.

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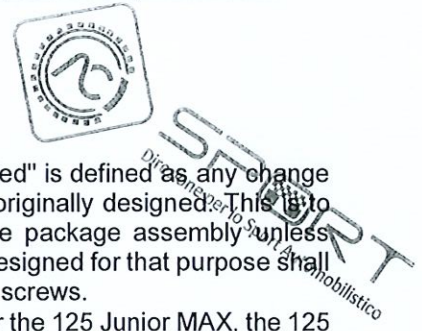
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## 3. MODIFICATIONS, LEGAL ADDITIONS, NON-TECH ITEMS, MEASUREMENTS

### 3.1. Modifications

- Neither the engine nor any of its ancillaries may be modified in any way. "Modified" is defined as any change in form, content or function that represents a condition of difference from that originally designed. This is to include the addition and/or omission of parts and/or material from the engine package assembly unless specifically allowed within these rules. The adjustment of elements specifically designed for that purpose shall not be classified as modifications, i.e. carburettor and exhaust valve adjustment screws.
- Genuine ROTAX components only that are specifically designed and supplied for the 125 Junior MAX, the 125 Senior MAX and the 125 MAX DD2 engine are legal, unless otherwise specified.
- Anything which is not expressly allowed in the RMCGF Technical Regulations 2024, is forbidden.

### 3.2. Legal additions

Temperature sensor for engine coolant (water).

### 3.3. Measurements

When taking any dimensional reading, of the following technical regulation, in the order of accuracy of 0,10 mm or even more precise, the temperature of the part must be between +10°C and +30°C.

## 4. TECHNICAL SPECIFICATION (OUTSIDE THE ENGINE AND CARBURETOR SEAL) FOR ROTAX KART ENGINES

### 125 Junior MAX, 125 Senior MAX and 125 MAX DD2

For all components outside the engine and carburettor seal, the competitor is responsible to assure the conformity with the RMCGF Technical Regulations 2024.

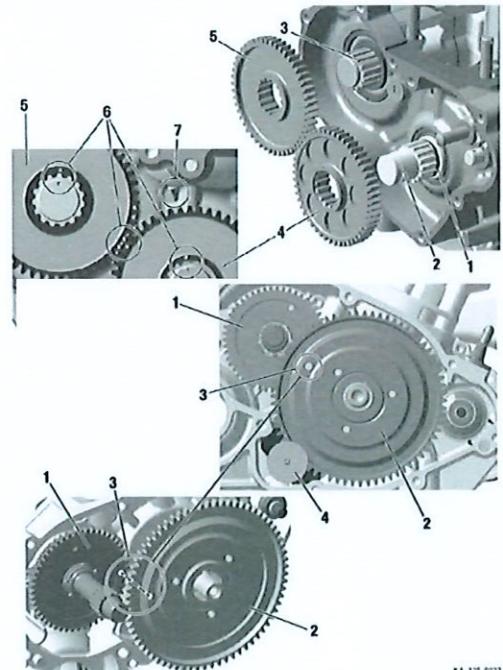
A minimum volume of 50ml of gear oil must be able to be sampled at all times during the event. Oil as supplied must be used and changing of the gear oil for an alternative brand is not permitted. The measured oil must be extracted via the port for this purpose in a maximum of 1 minute.

### 4.1. Balance drive

#### 125 Junior MAX and 125 Senior MAX

Steel balance gears only (minimum width = 8,8 mm) are legal to be used.

Balance gears must be installed and must be aligned according to the illustration.



#### 125 MAX DD2

Balance gear (1) must be fitted on primary shaft and must be aligned with the balance drive gear (2) according to the illustration. The minimum weight of a dry balance gear (1) including bearing must not be lower than 255 grams.

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# TECHNICAL REGULATIONS

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## 4.2. Centrifugal clutch

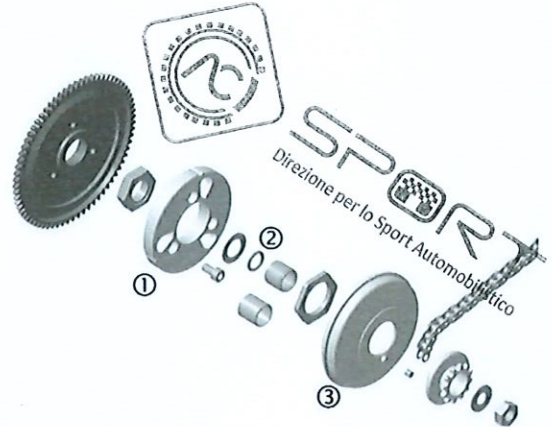
### 125 Junior MAX and 125 Senior MAX

Engagement speed of centrifugal clutch at maximum 4.000 rpm (the kart without driver must start to move).

The clutch (1) must show the wording "ROTAX".

O-ring (2) must be fitted.

The clutch drum (3) must show the wording "ROTAX".



Signs of emission of grease or substance from the needle/plain bearing into the clutch drum may not exceed the like shown in the picture.

Contact area between clutch and clutch drum must be dry at any time – no lubrication allowed.



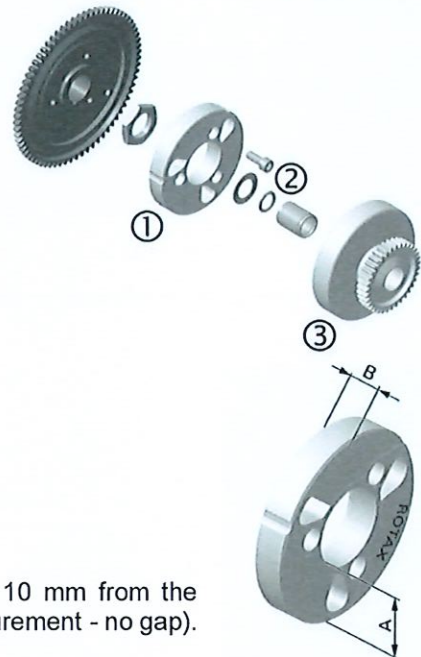
### 125 MAX DD2

Engagement speed of centrifugal clutch at maximum 4.000 rpm (the kart without driver must start to move).

The clutch (1) must show the wording "ROTAX".

O-ring (2) must be fitted.

The clutch drum (3) with drive gear must show the wording "ROTAX".



### Clutch

Height of clutch (B)

125 Junior MAX and 125 Senior MAX: Minimum = 11,45 mm

125 MAX DD2: Minimum = 14,45 mm

Thickness of clutch shoe (A)

Minimum = 24,10 mm

Measurement must be done at the 3 open ends of the clutch, 5 - 10 mm from the machined groove (all clutch shoes must be completely closed at measurement - no gap).

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# TECHNICAL REGULATIONS

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### Clutch drum (125 Junior MAX, 125 Senior MAX and 125 MAX DD2)

Outer diameter (C) of clutch drum

Minimum = 89,50 mm

Diameter must be measured with a sliding calliper just beside the radius from the shoulder (not at the open end of the clutch drum).

Inner diameter (D) of clutch drum

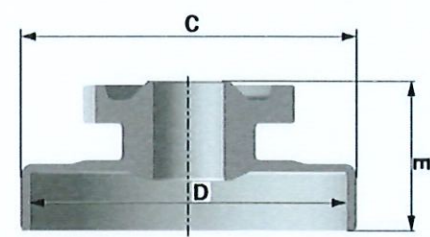
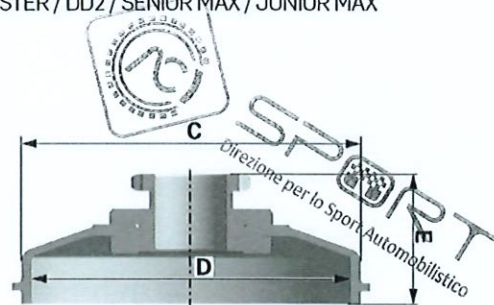
Maximum = 84,90 mm

Diameter must be measured with a sliding calliper. The measurement must be done in the middle of the clutch drum (in the contact area between clutch and clutch drum).

Height (E) of clutch drum with sprocket/primary gear:

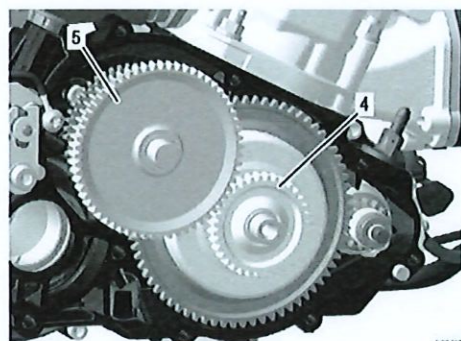
125 Junior MAX and 125 Senior MAX – Minimum = 33,90 mm

125 MAX DD2 – Minimum = 39,50 mm



### 4.3. Primary drive (125 MAX DD2):

Original Rotax primary drive gears (4+5) must be used only.



### 4.4. Gear shifting (125 MAX DD2)

The 2-speed gearbox must be operated from the steering wheel via the original Rotax paddle shift system (see illustration).

Cutting of the original aluminium shift paddles (30) or adding of non-original parts is not allowed.

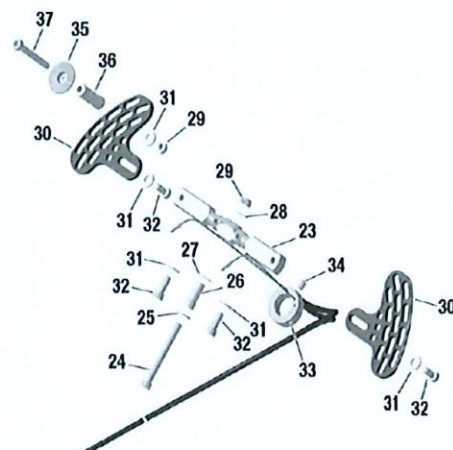
Mounting the shift paddles (30) on the bottom or top side of the whip (23) is an allowed adjustment.

Optional parts (35-37) can be mounted on the shift paddle (30) in any position.

Bending the aluminium shift paddles to align them to the steering wheel is an allowed adjustment.

The whip (23) offers two connections for the cables (23) on each side for short travel or long travel. Both connections are legal to be used.

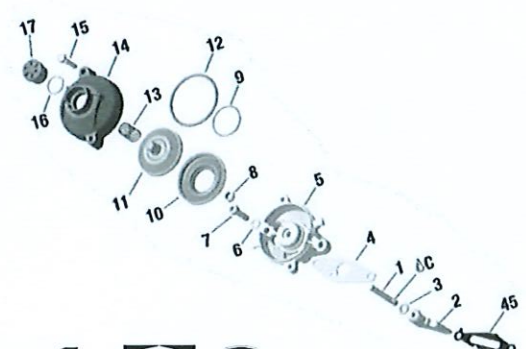
To change the connections of the cables to the whip (23) from left to right and right to left is an allowed adjustment.



### 4.5. Exhaust valve (125 Senior MAX and 125 MAX DD2)

System must be used with all components fitted as shown in the illustration with the exception of the cylinder protection plate (45).

Bellow (10) must have green colour.





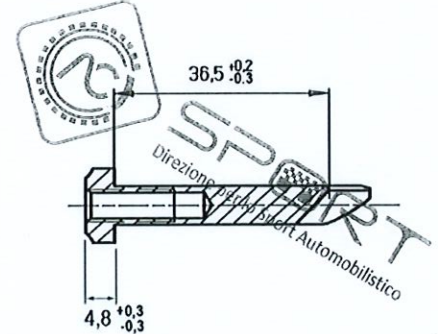


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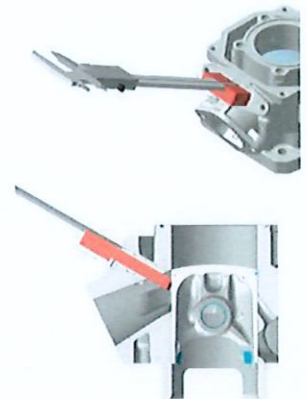
## Exhaust valve

Length of the exhaust valve (item 2): 36,5 mm +0,20 mm/-0,30 mm.  
Width of collar: 4,8 mm +/-0,3 mm



## Distance of exhaust valve flange at cylinder to piston

1. Turn crankshaft until the piston completely closes the exhaust port.
2. Insert the exhaust valve gauge (Rotax 277032) as shown in the picture until it stops at the flange.
3. Measure from the end of the gauge to the stopper surface for the exhaust valve.
4. Measurement must be done on both sides (upper and lower)
5. The measurement must not exceed 25,0mm.

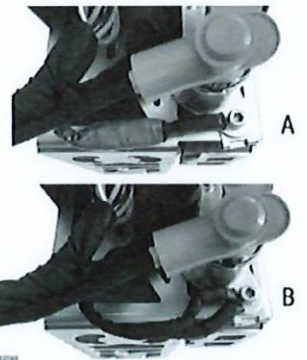


The use of the original impulse nozzle (1) in the pressure hose, connected to the magnet valve, is not allowed.



The electronic timed exhaust valve offers two different settings (A or B) for the opening of the exhaust valve.

- (A)...additional ground cable not connected
  - (B)...additional ground cable connected
- Both settings are legal to be used.



## 4.6. Ignition system

Dellorto digital battery ignition system, variable ignition timing, no adjustments possible.

## Spark plug cap

Marked "ROTAX", red colour (see picture)







# TECHNICAL REGULATIONS

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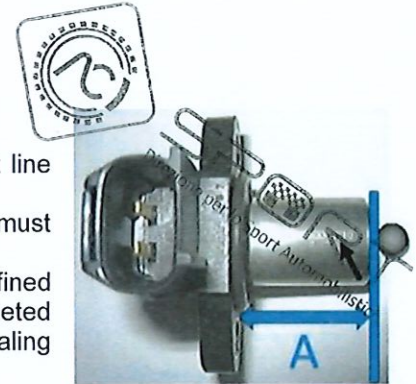
## Ignition sensor

The marking of the pick-up must show the following numbers in the first line 029600-0710.

A steel ball (diameter 3-5 mm) placed on circular surface of the sensor must stay in the center of the circular surface.

The length from the sealing face / surface to the end of the pick-up as defined in the picture (A) must not exceed 26.3mm. Measurement must be completed with gaskets removed. Signs of grinding or removal of material on the sealing face is strictly forbidden.

Fitting an additional gasket between the sensor and the crankcase is not allowed.



Ignition coil (and magnet valve - 125 Senior MAX and 125 MAX DD2 only) must be fitted with all components according to the illustrations below.

In case the mounting bracket (125 Junior MAX and 125 Senior MAX only) conflicts with a chassis component, the additions of 2 spacers, one per mounting hole, with a maximum thickness of 20 mm between the mounting bracket and the gearbox cover is allowed.

## 125 Junior MAX and 125 Senior MAX



## 125 MAX DD2



The visual appearance of the ignition coil must be identical with the pictures.

Ignition coil must show 2 pins at the terminal.

The ignition coil is labelled with two stickers, "BRP 666820" and "NIG 0105".

The ignition coil is still legal to be used also if one or both stickers disappeared.

Minimum length of the high-tension cable of the ignition coil is 210 mm (from outlet of ignition coil to outlet of spark plug connector = visible length of cable).



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The electronic control unit (ECU) is labelled with stickers and is still legal also if the sticker is unreadable or disappeared.

125 Junior MAX: "666813"

125 Senior MAX: "666815"

125 MAX DD2: "666816"

The ECU must be checked with the ECU tester (Rotax part no. 276230) according to following procedure.

Disconnect engine cable harness from ECU.

Connect ECU tester cable harness to ECU.

Connect energy cable of ECU tester cable harness with the charging connector of engine cable harness.

At every connection with the battery the software version of the ECU tester will be indicated on the display for approx. 2 seconds.

The software version indicated on the display must be 2V00.

Start the test by pressing the button "✓" on the ECU tester.

After approx. 3 second the type of ECU ① that is actually tested will be indicated in the second line of the display.

After approx. 30 seconds the result ② of the test will be indicated in the first line of the display.

The ECU tester must indicate following results:

125 Junior MAX category

① 666813JNRMAX

② !! Test OK !!

125 Senior MAX category

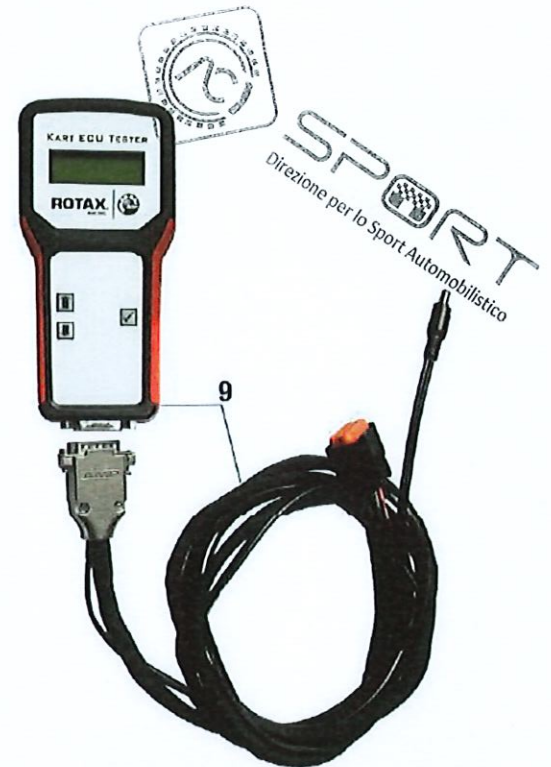
① 666815MAX

② !! Test OK !!

125 MAX DD2 category

① 666816MAXDD2

② !! Test OK !!







# TECHNICAL REGULATIONS

DD2 MASTER / DD2 / SENIOR MAX / JUNIOR MAX

## 4.7. Battery, battery fixation

Original battery with following specification must be used.  
a, YUASA YT7B-BS (with "ROTAX" branding) as supplied.

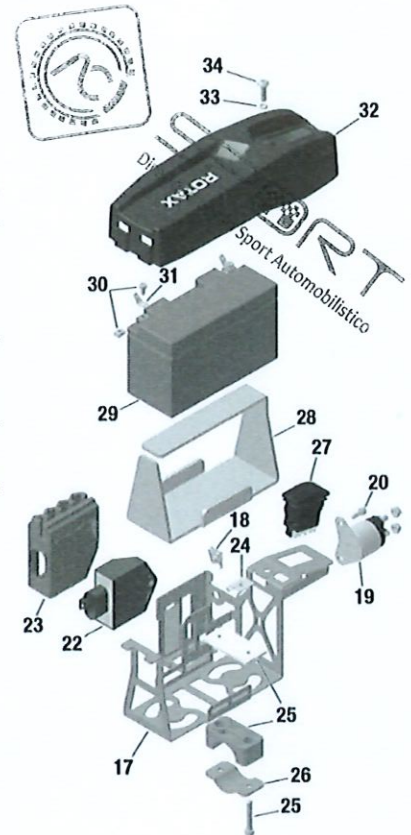
b, Only if a driver is over the weight limit (must not have any lead ballast on the kart) the driver is permitted to use an own supplied ROTAX RX/-12B or RX7-12L or ROTAX LiFeP04 (Lithium iron phosphate type) during the event.

Note: its important the correct charger is used for such a battery.

ROTAX will not supply any Lithium chargers or Lithium batteries at the event this will be the responsibility of the competitor.

Battery must be fitted with the original battery clamp and battery cover (according to illustration below) on the left side of the seat.

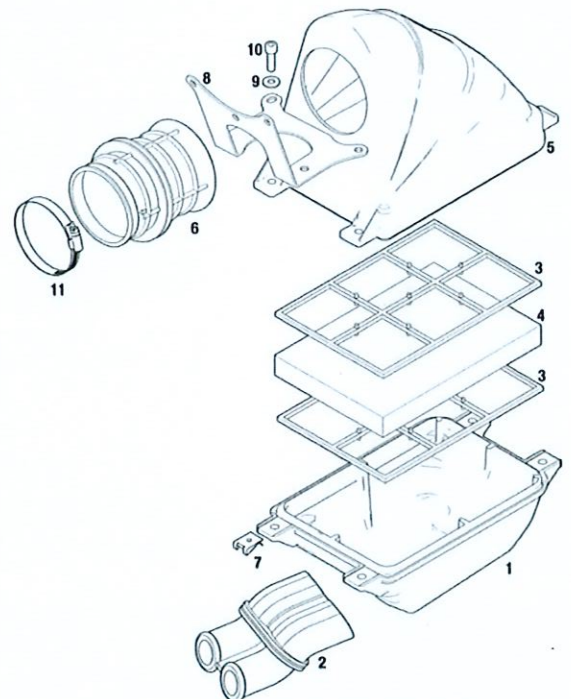
Battery clamp (17) must be fixed to the chassis with two clamps (25-26) and 4 screws (25).



## 4.8. Intake silencer

### a) 125 Junior MAX and 125 Senior MAX

- Intake silencer must be used with all parts as shown in the illustration and must be mounted on the support bracket with two screws (in dry and wet condition).
- Intake silencer tube (2) and carburettor socket (6) are marked with "ROTAX".
- Bottom intake silencer case (1) is marked on the inside with "225015".
- Top intake silencer case (5) is marked on the inside with "225025".
- Air filter has two layers and is marked with "Twin Air".
- Air filter (4) must be installed as shown in the illustration between the two holders (3) and must cover the complete area of the bottom intake silencer case (1).
- In wet (and dry) conditions it is not allowed to attach anything to the air box to protect the air inlet from water spray.





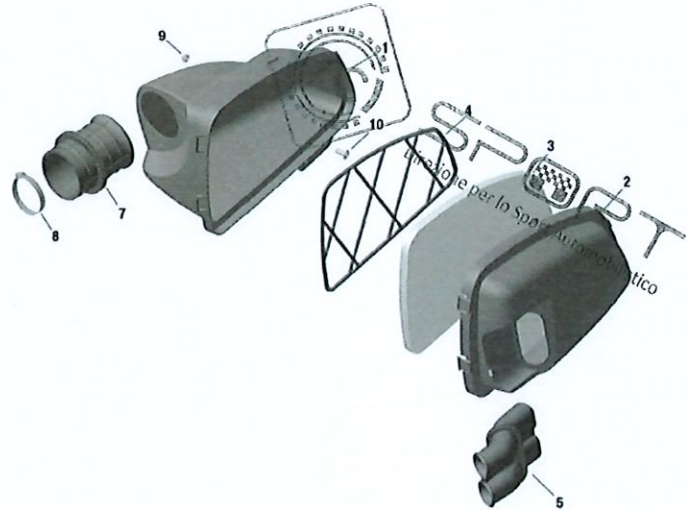


# TECHNICAL REGULATIONS

DD2 MASTER / DD2 / SENIOR MAX / JUNIOR MAX

## b) 125 MAX DD2

- Intake silencer must be used with all parts as shown in the illustration.
- Intake silencer case (1) is marked on the inside with "225013".
- Intake silencer cover (2) is marked on the inside with "225023".
- Air filter (3) with separate plastic frame (4) must be used. Intake silencer tube (5) and carburettor socket (7) are marked with "ROTAX".
- The air filter must be assembled between the intake silencer case and the intake silencer cover that the whole area of the intake silencer case is covered.
- In wet (and dry) condition it is not allowed to attach anything to the air box to protect the air inlet from water spray.



## 4.9. Carburettor

- Every carburettor is marked with a seal with a unique serial number (barcode).
- Carburettors are randomly assigned (on a loan basis for the time of the event) to drivers, registered and routinely checked/scanned by means of the Rotax EMS (Event Management System).
- Carburettor slide must show the digits "45" in casting.
- Jet needle must be stamped with "K57". The position of the jet needle is free.
- Settings of the carburettor adjustment screws (idle and idle air) are free.
- All jets must be correctly seated and securely fitted at any time (tightened)!
- The complete inlet bore of the carburettor housing must show cast surface.
- The venturi hole of the carburettor insert can show signs of a CNC control machining.
- The two vent fittings must be connected to each other with the original air vent hose, minimum length = 155 mm.
- The ventilation hole of the vent hose must be placed at the rear side of the carburettor.
- The organiser / Technical scrutineer reserves the right to inspect and or exchange the carburettor or any of its components at any time during the event.

## 4.10. Fuel pump, fuel filter

125 Junior MAX - MIKUNI diaphragm pump, (see picture) must be used and must be mounted as shown in the illustration.

125 Senior and 125 DD2 – Dellorto fuel pump, must be used and must be mounted as supplied.



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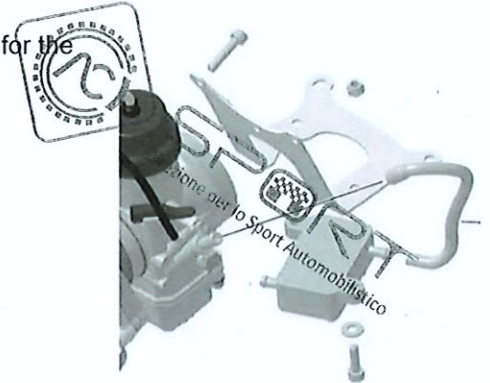


# TECHNICAL REGULATIONS

DD2 MASTER / DD2 / SENIOR MAX / JUNIOR MAX

## a) 125 Junior MAX and 125 Senior MAX

Fuel pump must be mounted on the bottom side of the support bracket for the intake silencer.



## b) 125 MAX DD2

Fuel pump must be mounted on the original support bracket as supplied.

## Fuel filter

Original fuel filter (see illustration) only is legal to be used. The fuel filter must be mounted between the fuel tank and prior to the fuel pump.

Except the fuel line, the fuel pump and the original fuel filter no additional parts are legal to be mounted between fuel tank and carburettor.



## 4.11. Radiator

Radiator must be mounted with all components as shown in the respective illustration.

To apply tape (neutral tape without advertising only) around the radiator is an allowed modification to control the air flow through the radiator.

Tape may not be removed from the radiator during operation on the track.

Any other non-original device to control the air flow through the radiator is prohibited.

## a) 125 Junior MAX and 125 Senior MAX

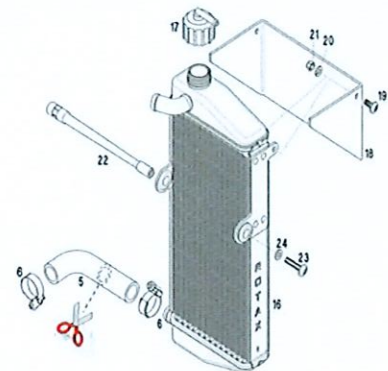
The radiator must be mounted on the right side of the engine.

Cooling area: Height = 290 mm, width = 138 mm

Thickness of radiator: 34 mm

Radiator must be stamped on the side with "ROTAX".

To remove the original flap is NOT allowed.



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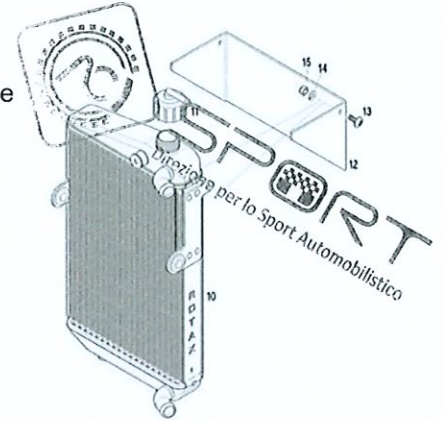
# TECHNICAL REGULATIONS

DD2 MASTER / DD2 / SENIOR MAX / JUNIOR MAX

## b) 125 MAX DD2

The radiator must be mounted on the left side beside the seat.  
The highest point of the radiator with cap may not be higher than 400 mm above the main tube of the kart chassis.

Cooling area: Height = 290 mm, width = 196 mm  
Thickness of radiator: 34 mm  
To remove the original flap is NOT allowed.



## 4.12. Engine coolant

Plain water without any additives must be used.

## 4.13. Exhaust system

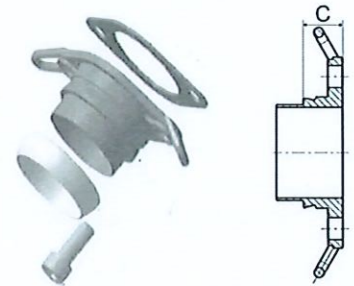
### 4.13.1. Exhaust socket

#### 125 Junior MAX, 125 Senior MAX and 125 MAX DD2

The measurement (C) must be at least 15,5 mm.

To use up to 4 pieces of original Rotax exhaust springs, to fix the exhaust system to the exhaust socket, is allowed.

To use a "safety wire" to fix the exhaust system to the exhaust socket is not allowed.



### 4.13.2. Exhaust pipe with silencer

Allowed modifications:

- Replacing the original rivets of the silencer end cap by 4 mm metric screws and corresponding locking nuts. The 3 x fixations (rivets, bolts and locking nuts) must be always secured tight to ensure a sealing between the perforated tube and exhaust system. The perforated tube must be fully inserted into the exhaust system (see top, right picture for reference) External protrusion of the outer sealing ring of the perforated tube is forbidden. (Indicated by the red arrow)
- Replacing the original isolating mat in the silencer by one new original isolating mat.

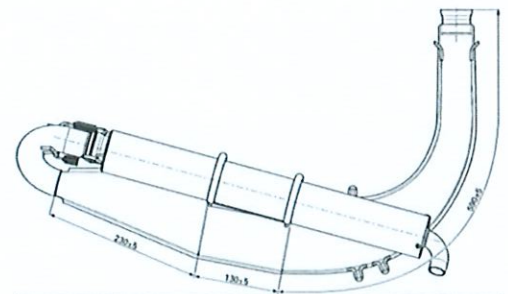


#### a) 125 Junior MAX and 125 Senior MAX

- The silencer must be mounted in a position where the direction of the 90° elbow outlet (direction of the hot exhaust gasses) does not harm any component of the chassis.
- Dimensions to be checked:  
Length of inlet cone: 590 mm +/-5 mm  
Length of cylindrical part of exhaust pipe: 130 mm +/-5 mm  
Length of end cone: 230 mm +/-5 mm

The only legal Isolation matting for 125 Junior and 125 Senior MAX is:  
ROTAX part number 297982

New size minimum 480 x 270mm (+/-10mm)  
New weight 207gr (176g – 238g)  
Used weight minimum 140g  
Used weight maximum 350g



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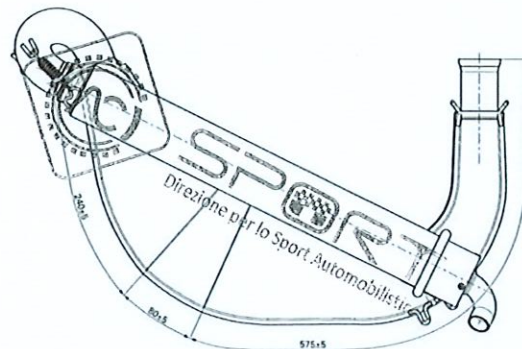


# TECHNICAL REGULATIONS

DD2 MASTER / DD2 / SENIOR MAX / JUNIOR MAX

## b) 125 MAX DD2

- The silencer must be mounted in a position where the direction of the 90° elbow outlet (direction of the hot exhaust gasses) does not harm any component of the chassis.
- Dimensions to be checked:  
 Length of inlet cone: 575 mm +/- 5 mm  
 Length of central part: 80 mm +/- 5 mm  
 Length of end cone: 240 mm +/- 5 mm



The only legal Isolation matting for 125 DD2 MAX is:  
 ROTAX part number 297982

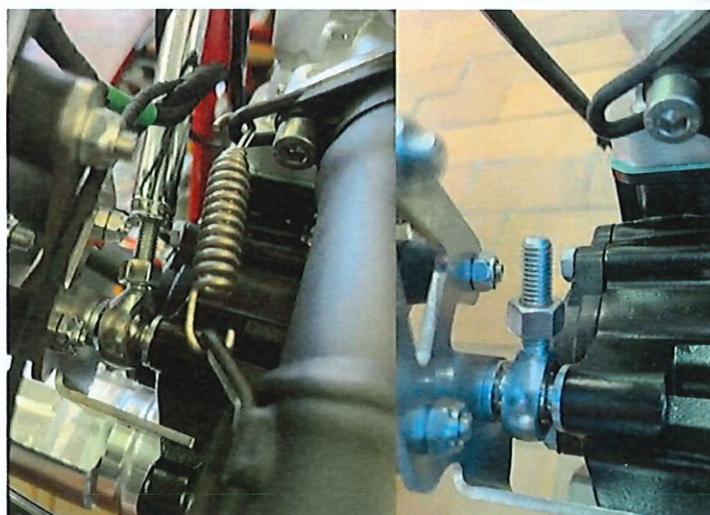
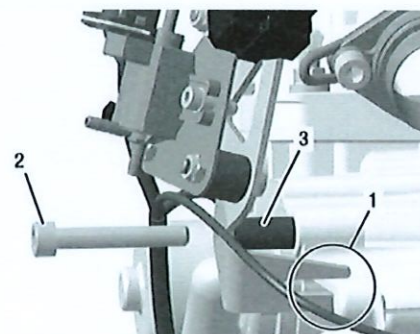
New size minimum 480 x 270mm (+/-10mm)  
 New weight 207gr (176g – 238g)  
 Used weight minimum 140g  
 Used weight maximum 350g

## 4.14. Additional seat support (125 MAX DD2)

On the engine side, maximum one additional seat support can be used.

The additional seat support must be fastened to the engine using the Allen screw (2). The distance sleeve (3) may be removed for this purpose.

For the DD2 category, the seat support on the engine side, must be mounted as in the following picture. The uniball joint must always remain attached to the engine.



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# TECHNICAL REGULATIONS

DD2 MASTER / DD2 / SENIOR MAX / JUNIOR MAX

## 5. PERMITTED ADJUSTMENTS TO THE CHASSIS, ENGINE, CARBURETTOR AND DRIVE TRAIN OPTIONS

### I. 125 Junior MAX – Praga by IPKarting

No.	Item	Specification
1	Carburation and gearing mandatory for the 1 <sup>st</sup> free practice.	134 Main Jet must be installed. Front sprocket 13, Rear sprocket 72 teeth
2	Carburation and gearing options for the 2 <sup>nd</sup> free practice through to the Finals	Any main jet from the kit supplied can be used. (124, 125, 126, 127, 128, 129, 130, 131, 132, 133 and 134) Front sprocket 13 or (12 tooth, just in combination with wet tyres) Rear sprocket 71, 72 and 73 teeth.
3	Spark plug type and gap	NGK GR8DI. Filler gauge 1,00 mm must not fit in between the two electrodes.
4	Chain length and type	Only chains as supplied at the event by the manufacturer are legal to be used. 104 chain length.
5	Ride height	Front : All settings allowed Rear : All settings allowed
6	Camber and Castor	Camber : All settings allowed Castor : 0, 0,5, 1 & 2deg allowed. All adjustments must be made using the top castor pill, the bottom must remain standard as supplied.
7	Ackerman settings	All settings allowed
8	Seat supports	Only 1 x left and 1 right optional seat supports can be used.
9	Seat fixing	All fixing must be tightly secured. Seat plates as supplied by IPK must be installed between the seat and all supports.
10	3 <sup>rd</sup> Bearing	It is allowed to remove the fixings and secure with 2 x cable ties.
11	Rear bumper	It's allowed to move horizontally but not vertically
12	Optional parts	Adjustable steering wheel hub or 1 Piece hub. Slanted additional plate / adjustable footrest system / Side protection kit for the seat.

From the 2nd non-qualifying practice ROTAX recommends: Jet 126, needle position 4, 0,65 mm spark plug gap and 55°C engine temperature

Note: Only standard components as supplied at the event by the manufacturer for the specific category may be used in accordance with the RMCGF Technical Regulations 2024 and its appendices.

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# TECHNICAL REGULATIONS

DD2 MASTER / DD2 / SENIOR MAX / JUNIOR MAX

## II. 125 Senior MAX – Sodikart

No.	Item	Specification
1	Carburation and gearing mandatory for the 1 <sup>st</sup> free practice.	136 Main Jet must be installed. Front sprocket 13, Rear sprocket 74 teeth.
2	Carburation and gearing options for the 2 <sup>nd</sup> free practice through to the Finals	Any main jet from the kit supplied can be used. (124, 125, 126, 127, 128, 129, 130, 131, 132, 133 and 134) Front sprocket 13 or (12 tooth, just in combination with wet tyres) Rear sprocket 73, 74 or 75 teeth.
3	Spark plug type and gap	NGK GR8DI. Filler gauge 1,00 mm must not fit in between the two electrodes.
4	Chain length and type	Only chains as supplied at the event by the manufacturer are legal to be used. 102 chain length.
5	Ride height	Front : All settings allowed Rear : All settings allowed
6	Camber and Castor	Position free
7	Ackerman settings	Steering column : 3 positions Stub axle: Outside only
8	Seat supports	Only 1 x left and 1 right optional seat supports can be used.
9	Seat fixing	All fixing must be tightly secured.
10	Other notes	Side pod bars must be secure tight at all times.
11	Optional parts	2 types of peddle kit. Angled steering wheel boss. One additional plastic shim with an angle of 8degrees is allowed.

From the 2<sup>nd</sup> non-qualifying practice ROTAX recommends: Jet 128, needle position 4, 0,65mm spark plug gap and 55°C engine temperature

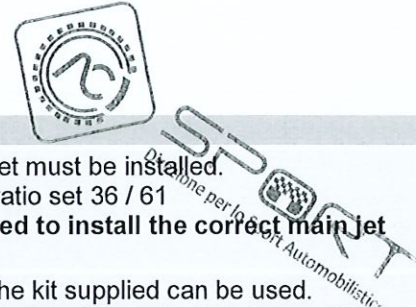
Note: Only standard components as supplied at the event by the manufacturer for the specific category may be used in accordance with the RMCGF Technical Regulations 2024 and its appendices.





# TECHNICAL REGULATIONS

DD2 MASTER / DD2 / SENIOR MAX / JUNIOR MAX



### III. 125 MAX DD2 – Birel ART

No.	Item	Specification
1	Carburation and gearing mandatory for the 1 <sup>st</sup> free practice.	136 Main Jet must be installed. Gear ratio set 36 / 61 <b>Please note: you will need to install the correct main jet</b>
2	Carburation and gearing options for the 2 <sup>nd</sup> free practice through to the Finals	Any main jet from the kit supplied can be used. (128, 129, 130, 131, 132, 133, 134, 135, 136, 137 & 138) Gear ratio sets (36 / 61), (37 / 60) or (35 / 62 in combination with wet tyres only)
3	Spark plug type and gap	NGK GR8DI. Filler gauge 1,00 mm must not fit in between the two electrodes.
4	Ride height	Front: As supplied (middle) or chassis high Rear: As supplied – No adjustments allowed
5	Camber and Castor	0, 0,5, 1 & 2deg allowed. All adjustments are allowed. (only 1 kit of 2 or 1.5deg castor is allowed to be used)
6	Ackerman settings	All 2 positions are allowed
7	Seat supports	Upper mountings must always be tight, the front lower supports can be loosed.
8	Seat fixing	Upper mountings must always be tight, the front lower supports can be loosed.
9	Rear bumper	It's allowed to move horizontally but not vertically
10	Other notes	Steering column 520mm is allowed
11	Optional parts	Steering plate number 2

From the 2<sup>nd</sup> non-qualifying practice ROTAX recommends: Jet 132, needle position 4, 0,65mm spark plug gap and 55°C engine temperature

**Note:** Only standard components as supplied at the event by the manufacturer for the specific category may be used in accordance with the RMC GF Technical Regulations 2024 and its appendices.





# TECHNICAL REGULATIONS

DD2 MASTER / DD2 / SENIOR MAX / JUNIOR MAX

## IV. 125 MAX DD2 Masters – Charles Leclerc

No.	Item	Specification
1	Carburation and gearing mandatory for the 1 <sup>st</sup> free practice.	136 Main Jet must be installed. Gear ratio set 36 / 61 <b>Please note: you will need to install the correct main jet</b>
2	Carburation and gearing options for the 2 <sup>nd</sup> free practice through to the Finals	Any main jet from the kit supplied can be used. (128, 129, 130, 131, 132, 133, 134, 135, 136, 137 & 138) Gear ratio sets (36 / 61), (37 / 60) or (35 / 62 in combination with wet tyres only)
3	Spark plug type and gap	NGK GR8DI. Filler gauge 1,00 mm must not fit in between the two electrodes.
4	Ride height	Front: As supplied (middle) or chassis high Rear: As supplied – No adjustments allowed
5	Camber and Castor	0, 0,5, 1 & 2deg allowed. All adjustments are allowed. (only 1 kit of 2 or 1.5deg castor is allowed to be used)
6	Ackerman settings	All 2 positions are allowed
7	Seat supports	Upper mountings must always be tight, the front lower supports can be loosed.
8	Seat fixing	Upper mountings must always be tight, the front lower supports can be loosed.
9	Rear bumper	It's allowed to move horizontally but not vertically
10	Other notes	Steering column 520mm is allowed
11	Optional parts	Steering plate number 2

From the 2<sup>nd</sup> non-qualifying practice ROTAX recommends: Jet 132, needle position 4, 0,65mm spark plug gap and 55°C engine temperature

**Note:** Only standard components as supplied at the event by the manufacturer for the specific category may be used in accordance with the RMCGF Technical Regulations 2024 and its appendices.





# TECHNICAL REGULATIONS

DD2 MASTER / DD2 / SENIOR MAX / JUNIOR MAX



## 6. ROTAX E20 General

The regulations for the ROTAX Project E20 are developed and based on the DMSB Elektro-Kart (DEKM) and FIA Technical Regulations for Electric Karts (E-Karting) published by the FIA. The ROTAX E20 is approved by the FIA (approval number 065-AED-20).

The only vehicle allowed is the ROTAX Project E20 as provided by ROTAX, this comprises of a Specific Sodi Kart sigma chassis and ROTAX E20 Electric power train.

It is only allowed to use OEM parts as supplied by ROTAX at the event.

All work or exchange of any parts related to the Power train or electric systems is only allowed to be completed by ROTAX appointed persons (High voltage level 2 qualified and under instruction from the ROTAX Race manager).

The only persons allowed to perform mechanical work on the ROTAX Project E20 vehicle "chassis" (excluding the power train or electrical systems) is ROTAX staff or the registered driver and the nominated mechanic for the driver.

All persons must have received and understood the Project E20 operator's manual and understood the briefing/training as provided by ROTAX along with signing the release waivers.

It is forbidden for any other person to work on, operate, or charge the ROTAX Project E20 vehicle at any time.

Failure to comply with the guidance of the ROTAX staff or ROTAX Race manager at any time will lead to exclusion of the event and removal of access to the ROTAX Project E20 vehicle. No refunds will be provided in such an incident.

### 6.1. CHARGER AND POWER SUPPLY

The only allowed power supply and charger to be used is that as provide by ROTAX.

Each driver will be allocated a place in the drivers tent complete with a worktable, charger and specific kart stand. The driver and his team members are responsible to keep the work area and the awnings tidy at all times. The driver and his team must always follow the instruction of the ROTAX staff.

Connecting any device not provided by ROTAX to the charger, power supply or ROTAX Project E20 vehicle is strictly forbidden, with the exception of an additional data logger or camera as/if defined in the sporting regulations for the event.

The driver and the nominated mechanic are permitted to connect, charge and disconnect the Project E20 vehicle from the charging system after having completed the training to do so and having received the instruction by ROTAX staff.

### 6.2. DATA LOGGING

The ROTAX Project E20 vehicle is supplied with a custom data logger, built into this data logger is the isolation monitor systems and the safety warning lights.

This provided data logger must not be altered manipulated in any way shape or form. Access to the data loggers Wi-Fi connection is only permitted to ROTAX staff.

The ROTAX team has full access to all data from all vehicles at any time required.

Covering the display with any material is strictly forbidden and the isolation monitoring warning lights must never be obstructed from view at any time.





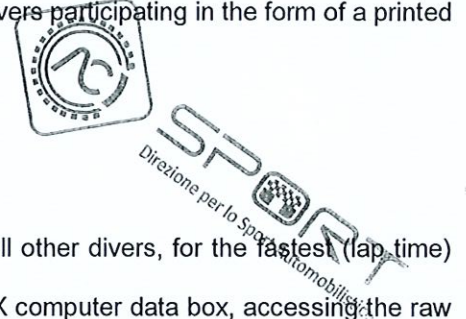
# TECHNICAL REGULATIONS

DD2 MASTER / DD2 / SENIOR MAX / JUNIOR MAX

The ROTAX team will provide "when possible" shared data to all the drivers participating in the form of a printed E20 data pack.

The E20 data pack will comprise of the follow (if provided)

- 1, Track map (with sectors defined)
- 2, Measure graph
- 3, Split time report and Lap time report
- 4, Channel report



The fastest driver from the session will be used as the reference for all other divers, for the fastest (lap time) driver's data pack the 2nd fastest (lap time) driver will be compared.

The drivers or his team members are not allowed access to the ROTAX computer data box, accessing the raw data via WI-FI connection or via any other means is strictly for the ROTAX team only.

## 6.3. CHASSIS PROTECTION

The Chassis protection plates must be installed as supplied and always secured on the vehicle prior to each on track session.

The ROTAX Race manager along with the chief scrutineer has the right to refuse the kart to enter the circuit if the protection plates are not installed or suitably secured as supplied.

This chassis protection plates are not a post-race technical check / compliance item. If a chassis protection plate is damaged or not secured, it must be replaced before the next on track session.

## 6.4. ADJUSTMENTS TO SAFELY ACCOMADATE SHORTER OR TALLER DRIVERS.

Any foot support and Pedal kits as pre-approved by the chief scrutineer and ROTAX Race manager are allowed to be installed.

Permanent modification of the chassis to fix such devices is not allowed.

(Permanent modification is defined as not possible to return to original form after removal of such addition).

Example: drilling, grinding or removal of material from the chassis is forbidden to fit such a device, the original designed fixings on the chassis are the only allowed points of installation / attachment.

The only allowed components for adjusting the steering height, angle and distance are that as supplied by ROTAX at the event.

Any adjustment must satisfy the ROTAX Race manager and the Chief Scrutineer for the event.

## 7. MODIFICATIONS

The Project E20 Vehicle or any of its ancillaries may not be modified in any way. "Modified" is defined as any change in form, content or function that represents a condition of difference from that originally designed. This is to include the addition and/or omission of parts and/or material from the Vehicle assembly unless specifically allowed within these rules.

The adjustment of elements specifically designed for that purpose shall not be classified as modifications, i.e., Steering geometry, wheelbases and chassis adjustments using the provided material.

Genuine ROTAX components only that are specifically designed and supplied for the ROTAX PROJECT E20 are legal, unless otherwise specified.

ANYTHING WHICH IS NOT EXPRESSLY ALLOWED IN THE TECHNICAL REGULATIONS IS FORBIDDEN.

## 8. TECHNICAL SPECIFICATION

### MOTOR

Rotax designed Permanent Magnet Synchronous Motor (PMSM) with integrated transmission

### CONTROL UNIT

Specifically developed VCU (Vehicle control unit)

### BATTERIES

Lithium-ion batteries incl. BMS (Battery Management System) and IMD (Isolation Monitoring Device)





# TECHNICAL REGULATIONS

DD2 MASTER / DD2 / SENIOR MAX / JUNIOR MAX

## COOLING SYSTEM

Optimised combined air and liquid cooling system

## SYSTEM VOLTAGE NOMINAL

350V

## E-BRAKING / RECUPERATION

Deactivated

## BOOST FUNCTION

Available, pre-set by ROTAX. Operated by the driver.

## REVERSE FUNCTION

Available. Operated by the driver.

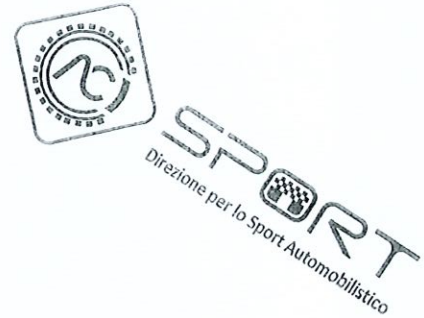
## CERTIFICATION

FIA CIK Approval

DEKRA

## CHARGING

AC / CEE16



## 9. TECHNICAL SPECIFICATION CHASSIS

Sodikart / Sodi Sigma DD2

Wheelbase 1040mm

Brakes (Hydraulic) 2 front and one rear brake with adjustable brake bias

It is permitted to use long rear hubs as provided by ROTAX (Alu rear hub D50 L90 K8 PC0252.528) only in conjunction with wet tyres and rims.

It is permitted for the rear wheels to be inside the side bodywork.

Minimum rear wheelbase is 1340 mm at the widest point.

Maximum rear wheelbase is 1400 mm at the widest point.

## 10. ROTAX E20 – Power settings

The ROTAX Project E20 has three pre-programmed power settings that can be adjusted by installing an alternative ignition key which is supplied and controlled by ROTAX.

Green key – Junior power setting

White key – Senior power setting

Orange key – Qualifying mode

The only power setting modes allowed to be used in the various elements of the event will be defined in the event supplementary regulations.

Pre and post-race technical checks can be performed on the Vehicle, Vehicle control unit and Key system at any time by the technical scrutineer in conjunction with the ROTAX race manager, any competitor found to be manipulating or not using the ignition key / power setting as set out in the supplementary regulations will be excluded from the event.

It is only allowed to use OEM parts as supplied by ROTAX at the event.

----- END OF TECHNICAL REGULATION -----

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